THE URBAN DISTRICT COUNCIL OF ESTON.

SEVENTH

ANNUAL REPORT

BY

THE MEDICAL OFFICER,

FOR THE

YEAR ENDING 31ST DECEMBER, 1904.

Middlesbrough:

WILLIAM APPLEYARD & SONS, LIMITED, PRINTERS, 12 ROYAL EXCHANGE, 1905.



The Urban District Council of Eston.

Councillors:

ANDERSON, RALPH

BELLWOOD, GEORGE

BROWN, ROBERT

DAVIES. THOS.

EVANS. DAVID (CHAIRMAN)

HUME. WM. GYMER

KELLY, REV. B.

MEABURN, M. W.

NIXON, WM. HY.

PEACOCK, BERT.

RICHARDS, A. WINDSOR

TURNER, JOHN

Clerk:

THOMAS BELK, Solicitor, Middlesbrough.

Surveyor and Sanitary Inspector:

C. McDERMID, Eston, R.S.O.

Medical Officer:

GEORGE C. H. FULTON, M.B., C.M., FELLOW OF THE ROYAL INSTITUTE OF PUBLIC HEALTH.

Sanatorium:

GEORGE C. H. FULTON, M.B., C.M., Eston, Medical Officer.

MISS FROOD, Matron.

Collector:

ROBERT FRANKS, Normanby.



ESTON URBAN DISTRICT COUNCIL.

SEVENTH

ANNUAL REPORT

OF

THE MEDICAL OFFICER OF HEALTH.

TO THE ESTON URBAN DISTRICT COUNCIL.

GENTLEMEN,

I have the honour of submitting to you my Seventh Annual Report on the Health of Eston District during the year 1904 with an account of the Sanitary work performed.

STATISTICAL SUMMARY.

Area of the District in acres	~		-	-	_		2,251
Estimated Population at Mid-Su	mmei	•	-	-	-	-	12,500
Density of Population per acre	_		-		-	_	ō [.] 55
Inhabited Houses		-		-	-	-	2,266
Rateable value of District (nett)	4	-	-	-	-	£74,4	86 5s.
Births		-		-	-	-	393
Birth-rate	-		-	-	-	-	31.44
Deaths	de so	-	-	-			204
Death-rate	-		-	-	-	-	16:32
Zymotic Deaths	-		_	-	-	-	20
Zymotic Death-rate		-		-	-	-	1.60
Infantile Mortality							72
Ratio of Infantile Deaths to Birth	hs pei	. 1,00	O	-		-	182:9
Infectious cases notified -	_	-	-	-	-	-	135
Infectious cases isolated at the S.							72

VITAL STATISTICS.

During the year the births of 393 children have been registered, of these 209 were boys and 184 girls. The total gives a rate of 31.44 per 1,000 per annum of the estimated population. Last year the birth-rate was 32.99 per 1,000 of the estimated population.

MORTAL STATISTICS.

During the year ending December 31st, 1904, 204 deaths were registered in Eston Urban Sanitary District. The death rate was equal to 16:31 per 1,000 of the population estimated to the middle of the year. Last year 201 deaths were registered, the death rate being equal to 15:76 per 1,000 per annum of the estimated population.

TABLE A.

Showing the Birth and Death Rates of Eston, 1895 to 1904 inclusive:

Rates per 1,000 of	population	for 1904	were:	Births	31.44,	Deaths	16:31	
,,	,,	1903	• •	٠,	32.99	• •	15.76	Average Death-
"	"	1902	,,	2 2	35.07	4 4	17.03	rate for
21	;;	1901	• •	,,	38.21	,.	14.37	10 years
"	,,	1900	, ,	,,	31.60	• •	19.29	17.18.
4.9	, ,	1899	* 5	, -	35.31	,.	20 94	$\langle A_{ m Verage} \rangle$
,,	"	1898	, ,	٠,	37.63	• •	17.72	Birth-
,,	, ,	1897	2 7	,,	38.99	٠,	16.45	rate for 10 years
,,	7 7	1896	;;	22	36.37	, •	16.45	10 years $35.48.$
,,	<i>7</i> •	1895	,,	"	37.24	2 1	17.48	

7

B.—Table showing the Number of Deaths from Zymotic Diseases in the Ten Years 1895 to 1904.

1901	:	11	्रा	:	<u>ئ</u> ا	:		_	ಣ	:	20	181	201	1.60	11:79	1632
1903	:		:	ं।	ಣ	:	٥١		s	:	16	178	191	1:30	13:46	15.76
1902	:	∞			1-		31	_	:		2.5	179	201	1.86	15.17	17.03
1901	:	:	:	:	:	:	ಣ		<u>ल</u>		16	<u>.</u>	161	1.42	12.95	11:37
1900	:	:	??	??	1:5	:	-	:	∞	_	66	116	510	5.5.5	96:91	19-59
1899	:	11	:	:	<u>ي</u> ا		೧೯	\$1	18		<u>ea</u>	215	258	3.10	17.15	20.91
1898	9	-	:	:);	:		_	10	:	37	161	195	3.09	14-63	17-72
1897		्रा	-	:	Œ.	:	्रा	??)::	:	:51 :50	153	176	2.15	14:30	16.45
1896	:	15	ಣ	င့	1-	:	-		=	:	67	127	9/1	1.58	11.87	1645
1895	:	_	-):	-	:	्रा	6.	18	:	100	150	187	3:45	14.03	81.71
	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus	Fever- Enteric	Simple Continued	Diarrhœa	Erysipelas	Deaths from Seven Chief Zymotic Diseases	Deaths from other causes	Totals for each year to the District	Death-rate from Seven Chief Zymotic Diseases, per 1,000	Death-rate from other causes per 1,000	General Death-rate per 1.000

EPITOME OF MONTHLY REPORTS.

JANUARY. Death rate high, due to Chest Complaints from climatic conditions, and deaths in young children from want of care in the clothing of children. In our trying changeable climate it is absolutely essential that flannel should be worn next the skin.

FEBRUARY. Death rate low. Scarlet Fever prevalent in the district.

MARCH. Death rate high. Enteric Fever, two cases occurred at Old Eston, due to an old pump well which has been closed by arrangement with the owners, and Darlington water supplied to the tenants.

APRIL. Death rate low. Health of District most satisfactory.

May. Death rate low. Health of District continues satisfactory.

June. Death rate low. Health of District satisfactory, one case of Enteric Fever in South Bank, cause unknown.

July. Death rate low. Leaflets issued giving instruction on the prevention of Summer Diarrhoea. Health of district most satisfactory.

August. Death rate low. District almost free from any infectious disease.

SEPTEMBER. Death rate rather high. Scarlet Fever imported into your District from South Bank. This authority does not isolate its infectious cases, which helps to keep going infectious diseases in the Eston District.

October. Death rate rather high. Scarlet Fever prevalent, and two Diphtheria cases occur.

NOVEMBER. Death rate low. Scarlet Fever still prevalent, due to missed cases. School Teachers asked to co-operate with the Sanitary Authority in sending children home who complain of sore throat or sickness, and have them medically examined at once.

DECEMBER. Death rate low. Measles and Diphtheria prevalent at Eston. Schools closed three days for the disinfection of Schools and slates on account of Diphtheria, and Infants' Department of Eston schools, because of Measles until after the Christmas Holiday.

MEASURES TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES.

- 1st. Careful systematic inspection of the district with a view to remedying any sanitary defects likely to give rise to infections diseases.
- 2nd. Visitation of your Medical Officer and Inspector of every house in which infect ous disease occurs.
 - 3rd. Free Isolation in the Sanatorium.
- 4th. School notification of infectious diseases, and preventing of children from infectious houses attending school
- 5th. Distribution of printed precautions against the spread of infectious diseases.
- 6th. Disinfection of all infected houses by an Officer of the Council under the supervision of your Inspector.
 - 7th. Gratuitous supply of disinfectants in all cases requiring them.
- 8th. The Conncil pay for Swabs taken in doubtful cases of Diphtheria sent to the Clinical Research Association, London, by the Medical Officer.
 - 9th. Diphtheria Antitoxin used at the Sanatorium.

CAUSES OF DEATH.

Diseases of the Respiratory Organs. Thirty deaths occurred from this cause, being 19 less than last year. Diseases of the lungs will always remain high in your district; as we have a trying, changeable climate—and the men's employment is such as to endanger the lungs—heats and colds. We should wear flannel next the skin, and be more temperate in eating and drinking.

Tuberculosis and Wasting (Consumption) claims 29 victims as against 24 last year. Consumption is a preventible disease which is caused by minute living germs called "Tubercle bacilli," which usually enter the body with the air breathed. The matter which consumptive people cough or spit up contains the germs of the disease in great numbers. If this matter is spat upon the floors or the walls of any public or private place, or elsewhere, as soon as it becomes dry the germs of the disease which it contains, are blown about and float in the air, like any other minute particles of dust, and are inhaled by anybody breathing that air; or they may fall upon milk or other food, and gain access to the body with the food, so consumptives should always be careful to spit into a vessel containing water, or use a piece of rag or paper and burn it at once.

PRECAUTIONS TO BE TAKEN IN A CASE OF CONSUMPTION.

Consumption is an infectious disease and therefore is preventible. Infection occurs through the sputum or spit which the sick person coughs up from the diseased lungs; when this dries it floats in the air and is inhaled by other persons.

A consumptive person who follows out the following recommendations is not only doing the best thing possible for others, but is at the same time largely increasing his own chance of recovery.

Do not swallow the sputum.

Do not spit anywhere except on to a rag or piece of paper; burn the rag or paper at once.

The sick room should be cleansed often; on the termination of the illness it should be disinfected, this will be done free of charge by the Sanitary Anthority.

Dampness, darkness, dirt, and want of ventilation, favour the spread of the disease; sunlight, fresh air, and cleanliness check it.

A consumptive person should if possible occupy a separate bedroom.

SMALLPOX.

No case of Smallpox occurred in your district during the year. When a case does unfortunately occur, I may state the measures adopted as we have had absolute success so far since I became your Medical Officer. Whenever a case of Smallpox is notified, usually by telephone, the Medical Officer visits the patient at once and the patient is removed to our Isolation Hospital, the house is disinfected throughout, and the bedding and clothing removed and burned (we have not a steam disinfector) the contacts are quarantined and compensation paid to them (16 days) and revaccinated if they will consent. The following day the rooms are stripped of wall paper, which is removed and burnt, the contacts are visited every other day to see if any fresh cases develope; if not on the 15th or 16th day the contacts are liberated. One of the most obvious modes in the suppression of a threatened epidemic of Smallpox is promptness of action; a few days, even a few hours, may make all the difference between the suppression and extension of the disease, coincidental with the removal of the patient and the necessary disinfection, revaccination of all contacts should be proceeded with.

SCARLET FEVER.

Eighty-three cases occurred during the year. This disease was very prevalent and continues to spread in every part of your district, due no doubt to the mildness of the disease, want of care by parents, and cases being over looked, missed by parents or doctor.

MEASLES.

Measles was prevalent during the year and 11 deaths occurred from this disease. With care this should not be if mothers would only keep their children warm and indoors during the attack, *i.e.* for about 3 weeks. The Infant department of the Eston Schools was closed for 3 weeks before the Christmas holidays.

WHOOPING COUGH.

Whooping Cough should not be a fatal disease although we have 2 deaths recorded during the year. The child should be kept warm for 6 weeks. If the child is not then well it will benefit the child to give it a change of air to the sea side, mines, gas works, etc., etc. If the child is exposed before 6 weeks have elapsed (the natural duration of the disease) then the child gets Bronchitis or other complaint with the chance of a fatal result.

ENTERIC OR TYPHOID FEVER.

Only 1 death has occurred from Enteric Fever, 1 less than last year—this is very satisfactory. I repeat the number of cases of Typhoid Fever is a true index of the sanitary state of the district. All case of Enteric Fever are not water borne or due to milk. It may be caused by flies, in many cases when the diseased patient remains at home other persons are infected by soiled linen, &c.

DIPHTHERIA.

We have had 20 cases of Diphtheria notified during the year; in 11 the Bacillus was found and these cases were isolated at the Sanatorium. Diphtheria is an acute specific disease, epidemic and contagious, and is characterised by a membranous exudation on the mucous membrane of the throat or adjacent parts. Occasionally a wound on the surface of the body may be the seat of diphtheria infection. The disease is not only directly inoculable by contamination with diphtheria products, but may be indirectly conveyed by infected clothing and other external objects. It is primarily caused by a specific bacillus (Kerbs-

Loeffler) which is exclusively found at the seat of infection; and yields toxins, to the absorption of which the phenomena of the disease is due. It has been a matter of observation that certain rural districts in which the surface soil is cold and humid, and where damp houses and privy and drainage nuisances abound, or where the aspect involves much exposure to cold, wet winds, particularly favour diphtheria, these conditions lower the vitality of the system, and give a good breeding ground for the bacillus to act, but in my opinion do not directly cause the disease.

INFANTILE MORTALITY.

The term "infant" is restricted to twelve months of age. The high mortality among infants, however good their surroundings, and however intelligently maternal care is exercised, arises from many causes; a certain proportion are premature, and cannot survive, some are born with malformations and other defects which soon terminate their existence; others, the offspring of weakly parents, cannot long survive, and in spite of all care, there is a large proportion who will succumb to one or other of the many ailments to which infancy is susceptible. Making due allowance for these, it may be taken that an annual death-rate amongst infants of 100 per thousand is unavoidable, and if this be granted, it follows that anything above this is preventable, although the necessary means to prevent it are so extremely difficult to apply that even in the best districts the loss of infant lives is in excess of the standard. Our infantile mortality is 182 as against 157 per thousand last year, this shows a great sacrifice of young lives, and public opinion ought to be aroused to this fact. It is a scandal and a shame that in every other department of sanitary science we have been able to do much, but infantile mortality is the black spot in our sanitary efforts, and has remained about the same for the last 20 years.

We should, by teaching Hygiene in schools, stir up public opinion in this matter. The mother is the natural guardian of the infant, and 90 per cent. of all mothers should feed their own child; their breast-milk is the most natural and suitable for their own child. Mothers should be mothers and not gay society puppets, who want a life of change and excitement with the rest, in how they can get rigged up to attract and make a display. This is the new woman (mother) of the higher, middle, and lower classes. If breast-milk fails from any cause then cow's milk is most useful. Artificial foods and condensed milks of all kinds are an abomination and should not be given without advice. Infantile feeding is undoubtedly the most fertile source of our deteriorated national physique, to dream of making strong men and women out of damaged children is impossible.

of Population, Births, and of New Cases of Infectious Sickness, coming to the knowledge of the Medical Officer of Health, during the year 1904, in the Eston Urban District; classified according to Diseases, Ages, and Localities. C.—Table

sv	logisyrd	:			:	:	-	:	П	
X(odlining	:	:	:	*	:	•	:	:	:
emoved several ent in	niven)qiA		≎ 1		∞	:	•	:		11
h cases res in the treatme Hospitz	Continued Fever	:	:		:		:	:		:
Number of such cases removed from their homes in the several localities for treatment in Isolation Hospital	Typhoid Typhoid Herver	:	П		:	•	:	:		
Number from the	Scarlatina	12	27)⊙	9	8	13	10	59
ocality the	Erysipelas	:).c		∞	:	9	:	19	1:0
n each l ledge of f Health	Continued Fever	-	_	:	≎1	:	:		ಣ	
New cases of sickness in each locality coming to the knowledge of the Medical Officer of Health	Enteric or Typhoid Fever	:	_	:	ବଦ	•	्रा	:	G.	c.
cases of s ning to t Medical	Scarlatina	17	58	ಾ	G.	6	11	66	ž	33
New (Birphtheria		01	γ_1		:	quessel.	ಣ	17	50
XO	dllsm2		:	:		:		:	•	:
Aged	under 5 or over 5	Under 5	ž upwards	Under 5	ğ upwards	Under 5	5 upwards	Under 5	$ ilde{\delta}$ upwards	
Population at all Ages	Estima- ted to middle of 1904	6.013		1006	1,000	181.0		10,500	000:51	
Populs all	Last			28.511	T C C	9.439		11 808	77,000	
Names of Localities adopted	for the purpose of these Statistics; Public Institutions being shown as separate localities	Grangetown and Eston Grange	C			South Bank and Branch End				

Causes of, and Ages at, Death during year 1904.

14

				Dea	ATHS IN (NGING TO		Distric	Т АТ
Causes of D	EATH.			All	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up- wards
Measles				11		-				
Scarlet Fever		* * *		2	4	7			• • •	
Whooping Cough	• •	• • •			2					, .
Enteric Fever				2		2	•••	• • •	•••	
	• • •	• • •		1		•••			1	
Continued Fever	• • •			1			• • •	1.		
Diarrhœa ,	• • •	• • •	;	3		2	1			
Phthisis	• • •			12		1	1	1	9	
Other Tubercular Dis	seases			17	7	4	4	1	1	
Cancer, malignant di	sease			11					õ	6
Bronchitis		• • •		17	7	1	1.		ō	3
Pneumonia				10	2		• • •		7	1
Other Diseases of Resp	pirator	ry Org	gans	3	2	1			4 + 1	
Alcoholism Cirrhosis	of Liv	eı.		3					3	
Venereal Diseases				2	2					• (1)
Premature Birth				9	9					
Diseases & Accidents	of Par	turit	ion	6				1	5	
Heart Diseases		• • •	\	9				2	7	
Accidents				10		1			8	1
				129	35	19	7	6	51	11
All other causes				75	37	9	1		3	
						J	1	•••	o	25
All causes				204	72	26	0	C		0.0
An causes	• • •		••	204	12	28	8	6	54	36
			1							

Summary of Table III.

I.— Specific Febrile, or Zymotic Diseases.	No. of Deaths	No. of Deaths Brought forward 90
1. Miasmatic Diseases 2. Diarrhœal 3. Venereal IV.—Constitutional Diseases	20 5 2 - 27 41	VI.—Local Diseases—continued 65 5. Diseases of Urinary System 5 6. Diseases of Parturition 6 — 76
V.—Developmental Diseases Vl.—Local Diseases. 1. Diseases of Nervous System	22 16	VII.—VIOLENCE. 1. Accident or Negligence 10
2. Diseases of Circulatory System3. Diseases of Respiratory System4. Diseases of Digestive Organs		VIII.—Ill-Defined and not Speci- fied Causes 28
Carried forward	90	TOTAL 201

TABLE I.

Vital Statistics of Whole District during 1904 and Previous Years.

	Population	Ві	RTHS	TOTA	AL DEATH IN THE	s Regis Distric	STERED T	NETT DEATHS AT ALL AGES BELONGING TO		
YEAR	estimated to Middle of each year	No.	Rate		r 1 Year Age	At a	ll Ages		GING TO DISTRICT	
	- - <u></u>	10.		No.	Rateper 1,000 Births	No.	Rate	No	Rate	
1894	10,695	336	31.41	55		168	15.70	168	15:70	
1895	10,695	398	37.24	66	•	187	17.48	187	17:48	
1896	10,695	389	36:37	57		176	16.45	176	16:45	
1897	10,695	417	38.99	68		176	16:45	176	16.45	
1898	11,000	414	37.63	54		195	17:72	195	17.72	
1899	12,319	434	35:31	97	• • •	258	20.94	258	20.94	
1900	12,443	393	31.60	80		240	19.29	240	19:29	
1901	11,199	428	38.21	50	116	161	14:37	161	14:37	
1902	11,802	414	35.07	71	171	201	17:03	201	17:03	
1903	12,304	406	32.99	64	157	194	15:76	194	15.76	
Averages for years 1894-1903		402	35.48	66	148	195	17:12	195	17:12	
1904	12,500	393	31:44	72	182	204	16:32	204	16:32	

Table II.—Vital Statistics in 1904 and previous years.

Υ.	ear		Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under 1 year
1894	• • •		10,695	336	168	.).)
1895	• • •	• • .	10,695	398	187	66
1896			10,695	389	176	57
1897			10,695	417	176	68
1898			11,000	114	195	54
1899			12,319	434	258	97
1900			12,443	393	240	80
1901	• •		11,199	428	161	ŏ()
1902			11,803	111	201	71
1903			12,334	106	194	64
1904			12,500	393	204	72

Table III.—Cases of Infectious Disease notified during 1904.

		Cases notified in whole District										
Notifiable Disease	At all Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upw rds	Total cases notified in Eston				
Smallpox												
Diphtheria	. 20		4	11	2	3						
Membranous Croup												
Erysipelas	19			2	1	14	2					
Scarlet Fever	. 83		29	47	4	3						
Enteric Fever	. 9			1	2	6						
Continued Fever	. 4		1.	1	1	1		•••				
Totals	. 135		34	62	10	27	2					

ISOLATION OF INFECTIOUS DISEASES.

D.—The Table given below shows admissions and deaths of patients at the Sanatorium during each year since the 16th day of May, 1894, to the 31st December, 1904; giving a total of 744 cases, and a death rate for the 10½ years of 4·16 per cent.

	Aı	DMTSS	SIONS								Di	ЕАТН	S	
	Smallpox	Scarlatina	Diphtheria	Typhus	Enteric	Other Diseases	TOTAL	Smallpox	Scarlatina	Diphtheria	Typhus	Enteric	Other Diseases	Total
1894	 	2	1		4		7					1		1
1895	 1	148			8	2	158		1			1		2
1896	 	94			6		103		1			1		2
1897	 1	24	1		13	1	40					1	2	3
1898	 24	3			18		45	6				4		10
1899	 	6			10	2	18		. •			3		3
1900	 	52			12	4.	69		2			2		4
1901	 	98			16	1	115					2		2
1902	 	31			7	9	47		1					1
1903	 2	61	6		3	2	74					1		1
1904	 	59	11		1	1	72		1			1		2 .
	27	678	19		98	22	744	6	6			17	2	31 = 4.16

GEORGE C. H. FULTON, M.B., C.M.,

Medical Officer to Sanatorium.

THE SANATORIUM (32 BEDS).

This Institution continues to be appreciated in your district; 135 cases of infectious disease were notified, and 72 isolated. This is a good percentage. Eleven cases of Diphtheria were admitted to the hospital. They were injected with Antitoxin at once, and no deaths occurred. Of the 72 cases admitted during the year, only two deaths occurred—a case of Enteric Fever, and one of Scarlet Fever (Septic).

A steam disinfector is badly wanted at the Sanatorium, and I would again ask the Council to consider the advisability of having a steam disinfector at the Sanatorium. I have to thank the Matron (Miss Frood) and her Nurses for the care and skill they have bestowed on the patients. The results are their results.

SPECIAL REPORT ON THE PROCESS OF DISINFECTION.

GENTLEMEN,

The process of disinfection is conducted in a variety of ways, according to the necessities of the particular case—that is, whether it be rooms, articles of clothing, or bedding, discharges from the patients, food, drink, etc., that are infected. The means at our disposal are:—

- 1.—Heat (dry and moist).
- 2.—Chemical substances (in liquid or powder).
- 3.—Fumigation (by gases or vapours).
- 4.—Fresh air and general cleanliness (most important).

The question before the Council at present is:—Is the method of disinfection at the Sanatorium satisfactory? My answer is No. A special report was presented to the Council on the 12th of July, 1899.

Our method of disinfection is primitive in the extreme as I have pointed out more than once, and should if possible be replaced by a Steam Disinfector, which is the best way to disinfect. Unless we have proper disinfection of all infected articles, isolation is more or less a farce, as return cases must occur and undo the good that has been done by isolation.

In practice the problem of disinfection is almost always complicated by the fact that the virus is not exposed freely, but enclosed in garments, pillows, or even beds; that is, in more or less bulky articles made of materials which have been selected for use as being the worst conductors of heat.

It is found that steam rapidly penetrates into the interior of such objects. The first portions condense, parting with their latent heat in so doing and create a partial vacuum, so that successive supplies of steam follow continuously until a temperature of at least 212° is attained at the centre.

Dry hot air, on the contrary, being dependent on conduction, very slightly aided by convection, has no such power, and it is practically impossible to raise the temperature at the centre of a bed or similar bulky object to 212° F. by dry heat within a reasonable number of hours.

Hot air, moistened by steam, is superior to dry hot air in penetration but not in germicidal power, and is far inferior to steam in both respects.

Another important consideration is the effect upon the colour and texture of fabrics exposed to heat. Articles composed in part of fusible substances, such as glue or sealing-wax, are, of course, ruined by heat in any form. Steam is inadmissible for leather objects, since it shrivels them up and renders them worthless; hot air merely makes them dry and brittle. With these exceptions steam is less injurious than hot air in almost all respects. New woollen goods, such as blankets and flannels, lose some of their whiteness and fleeciness by either process, but not more than in one or two washings. Silk and cotton are not injured by steam nor by hot air if the temperature is carefully regulated. Dyes are surprisingly little affected by either steam or hot air.

The chief difficulty in steam apparatus is to prevent loss of heat and condensation. This is overcome by surrounding the steam chamber by a "Steam Jacket," that is, by making the wall of the apparatus double and admitting steam into the space between the inner and outer casings. A door is provided at each end, one for the reception of infected goods and the other for removal of goods after disinfection. The doors are steam tight, and are fastened by strong screw clamps. The articles to be disinfected are placed on trays or suspended from sliding racks.

The following are the chief disinfectors in the market:—

- 1.—Ransom's Hot Air Apparatus.
- 2.—Washington Lyons' Steam Apparatus.
- 3.—The Geneste and Herscher "Equifez" Apparatus.
- 4.—Reck's Steam Disinfector.
- 5.—Thresh's Disinfector.

The Washington Lyons' apparatus is perhaps the best, and will disinfect thoroughly in twenty minutes to half-an-hour. The Reck and Thresh apparatus are much cheaper, and the Thresh's is well spoken of.

I am, Gentlemen,

Your obedient servant,

Eston,

GEORGE H. FULTON, M.B., C.M.

26th March, 1904.

Medical Officer of Health.

COMMON LODGING HOUSE.

This Lodging House has been frequently inspected during the year, and it appears to be well managed and conducted. Wash-hand basins, etc., are now provided for the inmates. All my suggestions to benefit the inmates have been attended to. Mr. Taylor appears always willing to do what he can to help the Sanitary Authorities. Number of beds 84.

FARMS.

ESTON GRANGE FARM, MESSRS. BOLCKOW, VAUGHAN & Co.—54 Cows.—This farm is very well kept; all the byres are now well lighted and ventilated, and the water supply is improved. This farm is over stocked for the air space provided.

WRIGHTSON'S ESTON LOW FARM.—Here we have good farm buildings, but the farmer is evidently afraid of fresh air, as the ventilating holes in the byre are all stuffed with straw; but no milk is sent away from this farm. It is not necessary to do much, only point the mistake out to the farmer. Ventilation improved since last visit.

Bacon's. Church Lane.—4 Cows.—This farm is now better lighted and ventilated, and the surroundings greatly improved. The Dairy is improved, but baskets, &c., are kept in the dairy, and manure outside the byre wall close to door. I would advise that a letter be written to Mr. Bacon warning him of this nuisance.

RICHARDSON'S LODGE FARM, ESTON.—7 Cows.—Byres kept in fair condition. Dairy now satisfactory and well kept, every part clean.

RICHARDSON'S, JUBILEE ROAD.—4 Cows.—Proper dairy. Everything advised has been done since my last visit.

YEATES, JUBILEE ROAD, ESTON.—9 Cows.—The byres are only fairly satisfactory, but are well kept, and they try to do what is right so far as the houses will permit. Dairy unsatisfactory. Should be written to about dairy.

BINGLEY.—3 Cows.—Byre satisfactory. Dairy 95 California; unsatisfactory, but promised to carry out my requirements. This done.

Kyme, 147 California.—No Cow kept at present.

ALLENBY, THOMAS, JUBILEE ROAD, ESTON.—1 Cow.—Dairy not very satisfactory; now put right.

ARMSTRONG, WM., 17 JUBILEE ROAD, ESTON.—10 Cows.—Byre greatly improved. Dairy improved. Water supply from hill.

INGLEDEW, WM., CHURCH LANE, ESTON.—6 Cows.—Good byre accommodation, and the dairy very satisfactory, everything in order.

MILK SELLERS.

EVISON, CHARLES, BOLCKOW STREET, ESTON.—19 gallons daily from Hicks, Lackenby; all milk taken round. Milk in shop in covered vessel.

Sanderson, 67 William Street, Eston.—Dairy in yard, now satisfactory; milk taken round.

GALE, SARAH, 8 HENRY STREET, SOUTH BANK.—4 gallons daily from Skipper.—Satisfactory.

Dobson, M., 114 Normanby Road, South Bank.—Milk in covered vessels, fairly well stored—4 gallons daily, owns cows at Lackenby.

Ross, W., 6a Middlesbrough Road, South Bank.—Everything in order for a small sale. 1 gallon daily from Mr. Douglas, Normanby.

FLEMING, N. R., CROSS BECK, NORMANBY.—Satisfactory.

Johns, M., 19 Whitworth Road, Grangetown.—30 gallons daily supply from Eston Grange Farm. The milk is stored in proper vessels, which are kept thoroughly clean, but the shop isn't a suitable one for milk selling, when vegetables, fruit, fish, etc., are also sold. This cannot be remedied.

Angiers, Robt., 49 Laing Street, Grangetown.—17 gallons daily from Mr. Collin, Low Lackenby. This dairy is much better kept; the warning given has produced a good result. Milk only kept in this pantry now. Getting slack again: give another warning, again improved.

PORTER, ROBERT, 46 WHITWORTH ROAD.—3 gallons daily from Angier's, Grangetown. Everything in order.

PORTER, ROBERT, 6 WHITWORTH ROAD.—2 gallons daily from Angier's, Grangetown. Everything in order.

Wilkinson, A., 104 Laing Street, Grangetown.—35 gallons daily from Eston Grange Farm. Milk kept in back kitchen which is scrupulously clean—the place is small, but it is well lighted and ventilated.

LIGHTFOOT, ANN, 36 WHITWORTH ROAD, GRANGETOWN.——1½ gallons daily from Wilkinson's. Milk in proper vessels and covered. Papers sold in this shop.

CARMODY, W., 2 WHITWORTH ROAD, GRANGETOWN.—2 gallons daily from Eston Grange Farm. Milk in proper vessels. Shop satisfactory.

SLAUGHTER HOUSES.

All licensed slaughter houses have been inspected, and are in fairly good order. Of course I should like to see a public slaughter house for the district (abbatoir).

FACTORY AND WORKSHOPS ACT, 1901.

Section 132 of the Act states that "The Medical Officer of Health of every "District Council shall in his annual report to them, report specifically on the administration of this Act in workshops and work places, and he shall send a "copy of his annual report, or so much of it as deals with this subject, to the "Secretary of State."

The administration of the Act, which came into force on January 1st, 1902, adds considerably to the work of the Medical Officer of Health. Council, through its officers, duties are imposed with regard to the various places coming within its scope. These are defined as factories, tenement factories, domestic factories; workshops, tenement workshops, domestic workshops, and workplaces; bakehouses and laundries. It would not serve any good purpose to enter into the definitions of the various workshops above-mentioned, nor to give particulars as to the duties devolving upon the Council. To show, however, how far reaching the Act is, the following extract from Sec. 149 is given: "" Work-"shop means (apart from certain places stated in the sixth schedule), any premises, "room, or place not being a factory, in which premises, room, or place, or within "the close, or curtilage, or precincts of which premises any manual labour is "exercised by way of trade or for purposes of gain in or incidental to any of the "following purposes, viz. :- the making of any article or of part of an article, or "the altering, repairing, ornamenting or finishing of any article: or the adapting "for sale of any article, and to or over which premises, room or place, the employer "of the persons working therein has the right of access or control."

Appended is a Table shewing the number and nature of the workshops in the district (but list not complete, I am afraid) :—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

I.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OF INSPECTORS OF NUISANCES

Premises			Num	ber of	er of				
	Inspec	tions	Writte	en Notic	ces	Pros	ecutions		
FACTORIES (including Factory Laundries) WORKSHOPS (including Workshop do. WORKPLACES HOMEWORKERS' PREMISES	ry, 1904, Lat rvals	on	s remed verbal, ructions		None				
TOTAL	eral	N		None					
2.—DE	EFECTS	FOU	ND.		And the second		The state of the s		
D. with L.			N	umber	of De	efects			
Particulars			Found	,		Ren	nedied		
Nuisances under the Public Health A			1		Yes,	on V	erbal Notice		
Sanitary accommodations		$\left\{egin{array}{l} \operatorname{Act}, \ \operatorname{Th} \end{array}\right.$	1890, add ne Sanita ous worl	opted. ary acc	omn	odati	Amendmen on in the s are satis		
OFFENCES UNDER THE FACTORY & WORKS	SHOP ${ m Act}$.		None						
Total		. \	1.			-			
3.—ОТ	HER M	ATTE	RS.		and the				
C	lass	\				1	Number		
							None None		
MATTERS NOTHFIED TO H.M. INSPECTORS (Underground Bakehouses (S. 101)	F FACTORI		••				1,0110		
Underground Bakehouses (S. 101) Homework Workshops on the Register at the ex							None		
Underground Bakehouses (S. 101) Homework Workshops on the Register at the end 3 Bakehouses 8 Joiners' Shops 3 Plumbers and Tinsmiths 3 Blacksmiths 1 Saddler 6 Pork Butchers 10 Boot and Shoe Makers and Repair Tailor 10 Boot and Shoe Makers and Repair Tailor	 ND OF 1905 								

Most of the workshops were measured, and the cubic capacity calculated. The various conditions as to ventilation, heating, cleanliness, &c., were enquired into, and all defects promised to be remedied. During the year frequent inspections have been made. Outworkers—these are difficult to obtain, but we have now a fairly complete list.

I have again endeavoured, however feebly, to place before you my views appertaining to the public health of the district. My duties:—"to enquire into and ascertain, by such ways and means as were at my disposal, the causes, origin, and distribution of diseases within the Eston district, and to ascertain to what extent the same have depended on conditions capable of removal or investigation."

I have pointed out from time to time the difficulties with which I have to contend. We are proud of our material progress, prosperity, and commercial position, and I point with pride to our low death rate. This is no doubt due to your care and expenditure on sanitary matters.

I have the honour to remain, Gentlemen.

Your obedient servant,

GEORGE C. H. FULTON, M.B.. C.M.

Medical Officer of Health.

January 1905.

TO THE CHAIRMAN AND MEMBERS OF THE ESTON URBAN DISTRICT COUNCIL. GENTLEMEN,

I respectfully lay before you my Annual Report for the year ending December 31st, 1904.

NOTICES.

Statutory Notices requiring the abatement of Nuisances, caused by various Sanitary defects and offences, have been served during the year as follows, viz:—

Plugland Dans d D			8	y car	0.5 10110	, , , , ,
Blocked Branch Drains			 			65
Defective Closet Pans		• •				515
,, ,, Doors						54
Defective Scullery Sinks			 			1
Ducks and Poultry in Bac	ek Yar	d				
			Тотал	r		636
			TOIA.			000

WORK DONE UNDER VERBAL NOTICE.

As in the past a large number of minor nuisances and defects in connection with property and drains have been detected and remedied under verbal instructions without reporting to the Council.

UNSOUND MEAT, &c.

A careful look-out has been kept during the year for suspicious or unsound meat or food prepared for human consumption, and only one case was brought under observation, which on investigation it was found that there were no grounds for suspicion. The meat and food exposed for sale, speaking generally, is of very good quality.

INSPECTIONS.

The whole of the Slaughter Houses, Common Lodging House, Cowsheds, Dairies, and Milkshops have been inspected, and found in most cases in better condition than in previous years.

Inspections have also been made in all cases where complaints have been received, and defects remedied or reported upon.

FACTORY AND WORKSHOPS ACTS, 1901.

During the year I have visited and inspected the various Workshops and Workplaces throughout the District and in no case have I found cause for any serious complaint.

Appended is a list of the Workplaces, revised up to date—

Bakehouses.

46, Whitworth Road, Grangetown. (not in use).

Mrs. Johns, 19, Whitworth Road, Grangetown.

Mr. Pickering, 28. Whitworth Road, Grangetown.

DRESSMAKERS, MILLINERS, &C.

Miss Davey, 5, Cheetham Street, Grangetown.

Mrs. Wilson, 61, Victoria Road, Grangetown.

Miss Skilbeck, 17, Victoria Road, Grangetown.

Miss Snowdon, 20, Whitworth Road, Grangetown. (Stocking knitting).

Mr. H. Wilkinson, 45. Whitworth Road, Grangetown.

Mrs. Oke, West Street, Eston.

Miss E. Lovern, 41 Guisbro' Street, Eston.

Miss L. Bailey, 17, South Street, Eston.

Mrs. Fowler, 116, California, Eston.

Miss M. Shaw, 25, Gladstone Street, Eston.

Miss L. Clark, High Street, and 6 Gladstone Street, Eston.

Miss A. Davies, 19, William Street, Eston.

Miss M. Clements, 14, William Street, Eston.

Miss E. Lawery, 10, William Steeet. Eston.

Miss Cox, 23, Gladstone Street, Eston.

Miss Rand, 90, Normanby Road, Sonth Bank. (Milliner).

TAILORS.

Messrs. Osborne, High Street, Eston.

BOOT AND SHOE MAKERS AND REPAIRERS.

Mr. P. Quinn, 50 Vaughan Street, Grangetown.

Mr. Trainer, 43 Stapylton Street, Grangetown.

Co-operative Society, Wood Street, Grangetown.

Co-operative Society, Normanby Road, South Bank.

Co-operative Society, High Street, Eston.

Mr. Thos. Moore, High Street, Eston.

Mr. F. Atterton, 31 Gladstone Street, Eston.

Messrs. Robinson & Sons, Whitworth Road, Grangetown.

Mr. J. Farrar, 47 Vickers Street, Grangetown.

Mr. A. Hancock, 90 Normanby road, South Bank.

Joiners, Undertakers, Etc.

Messrs Bolckow, Vaughan & Co., Eston Grange Farm, Grangetown.

Mr. Butcher, Grangetown.

Mr. C. E. Morris, Bolckow Road and Roberts Street (Gas Engine and Machines) Grangetown.

Mr. Calvert, Jubilee Road and Edward Street (Gas Engine and Machines) Eston

Mr. T. Wilkinson, Gladstone Street, Eston.

Mr. M. W. Bearcroft, Old Eston.

Mr. W. Ingledew, jun., Church Lane, Eston.

Mr. C. G. Bennett, Normanby Road, South Bank.

PLUMBERS AND TINSMITHS.

Mr. T. Carter, Hewley House, Church Lane, Eston.

Mr. J. Keat, William Street, Eston.

Mr. Marley, Middlesbrough road, South Bank.

BLACKSMITHS.

Mr. C. Snowdon, High Street, Old Eston.

Mr. M. Johnson. Roberts Street, Grangetown.

Messrs. Bolckow, Vaughan & Co., Eston Grange Farm. Grangetown.

SADDLERS.

Messis. Bolckow, Vaughan & Co., Ltd.. Eston Mines, Eston.

PORK BUTCHERS.

Mr. Wm. Dunn. Whitworth Road (Gas Engine), Grangetown.

Mr. Joseph Carr, Whitworth Road (Gas Engine), Grangetown.

Mr. R. Wallace, Bolckow Street, Eston.

Mr. Fulton, Middlesbro' Road, South Bank.

Mr. F. Hammerton, High Street, Eston.

Mr. M. Meaburn, West Street, Eston.

SCAVENGING.

The Scavenging of the Council's district, which is carried out in the larger part of the district by the Council's own men, judging by the very small number of complaints received is most satisfactory.

FIRE BRIGADES.

Five fires have occurred during the year, the most serious being the Grocery and Provision Shop of Mr. Tarbitt, in Whitworth Road, Grangetown,

The Brigades have been kept up to the full strength and various additions in the shape of boots, new hose, &c., have been made to the equipment, which is now in a satisfactory condition. The Brigades have regularly performed their drills and the improved interest in the work is still being maintained.

DISINFECTING.

During the year 135 cases of Infectious disease have been notified, being one less than in the year 1903. The various diseases are as follows, viz.:—

Scarlet Fever		 	83 Cases,
Enteric and Typhoid,	5—4	 	9 ,,
Continued Fever		 	4
Diphtheria		 	19
Erysipelas		 	19
Membraneous Croup		 	1 ,,
			MARINE STREET,

72 of these were removed to the Sanatorium for treatment.

Total 135

In all cases after removal of the patients to the Sanatorium, the houses have been carefully and thoroughly disinfected, and in the case of patients being treated at home, the usual precautions have been taken, and on recovery the houses have been fumigated.

Limewash, Brushes, and Disinfectants have been (as in the past) supplied gratuitously to all applicants,

SEWERAGE.

The whole of the Sewers have been regularly and thoroughly attended to and flushed and maintained in a state of complete efficiency.

The main outfall Sewer Channel near Grangetown Station, has for a considerable length of the open channel been cleaned out, and the question of making a new cutting, or cleaning out the remainder of the old channel is now being considered by the Council, and would have now been completed had it not been for certain conditions and restrictions demanded by the Owner of the Foreshore.

PUBLIC WORKS IMPROVEMENTS.

The following Public Works and Improvements have been carried out during the year, viz:—

- 1. New Flagged Footpath, Kerb and Channel opposite Clay Lane Cottages, Normanby Road, South Bank.
- 2. Back Street behind Edwards Street, Eston, widened and repaved.
- 3. Footpath between Gladstone Street and William Street on South side of main road, Eston, re-flagged.
- 4. Dangerous Crossing near Police Station and portion of back William Street, Eston, repayed.
- 5. Lighting of Eston Road from Grangetown Subway to Cemetery Entrance—32 lamps.
- 6. Protecting fence erected on East side of Footpath to Eston Station.
- 7. Portion of Roadway and Footpath widened opposite J. Lister's property in Church Lane.
- 8. Open fireplaces and brick chimneys, and improved hot water supply added to the Sanatorium.
- 9. The Carriage-ways of the main roads, and other public roads and streets, including Sailors' Trod, William, West, and Hewley streets, Eston, have been repaired and re-metalled.
- 10. The Footpaths at the North End of Codd Street have been formed, kerbed and flagged.

- 11. All the dangerously slippery crossings in the district have been taken up and re-paved with Lock and Grip Scoriæ Bricks.
- 12. The Public Footpath from Lackenby to the Eston Branch Railway has been put into a good state of repair with a coating of Ashes.

PRIVATE IMPROVEMENTS.

- 1. The Back Street behind the Oddfellows Hall, Eston, has been paved with Slag Bricks, and surface water drained.
- 2. The remaining Private Streets at Grangetown have been repaired, and have been dedicated to the public and adopted by the Council.

PROSECUTIONS.

There have been three prosecutions for chimney accidentally on fire, and one prosecution for driving without a license. In each case a fine was imposed.

PLANS APPROVED.

The following plans were laid before the Council during the year and approved, and the buildings have been erected or are now in the course of erection.

- 1. Two Dwelling Houses in Roseberry Terrace, Grangetown.
- 2. Two do. do. Bessemer Street do.
- 3. One hundred and five Dwelling Houses in Alexandra Rd., Grangetown.
- 4. One Club House in Alexandra Road, Grangetown.
- 5. One Glazed Awning in front of Mr. Porter's shop, Grangetown.
- 6. One enlarged Attic Window in Co-operative Stores, Grangetown.
- 7. One Temporary Infants' School, Grangetown.
- 8. One New Shop Front, Whitworth Road, Grangetown.
- 9. One Alteration to House, Jubilee Road, Eston.
- 10. One Monumental Show Room, High Street, Eston.
- 11. One Dwelling House, Jubilee Road, Eston.
- 12. Two Cottages, Church Lane, Eston.
- 13. One Alterations to Wellington Hotel, Eston.
- 14. One Congregational Sunday School, Eston.
- 15. One Joiners' Shop, Bolckow Street. Eston.
- 16. One Shed, William Street, Eston.
- 17. One Shed, Bolckow Street, Eston.

WATER COURSES.

All the open Water Courses in the district have been periodically cleaned out, and are in a satisfactory condition.

GRANGETOWN SUBWAY.

The approval and sanction of the Local Government Board has been obtained for the proposed New Subway and approaches to Grangetown. Tenders have been received and accepted, and the Contract has been let to Messrs. J. B. Fowells & Sons, of Middlesbrough, and Messrs. Shewell & Co., of Darlington. It is proposed to commence the work early in January.

I am, Gentlemen,

Your obedient servant,

C. McDERMID.